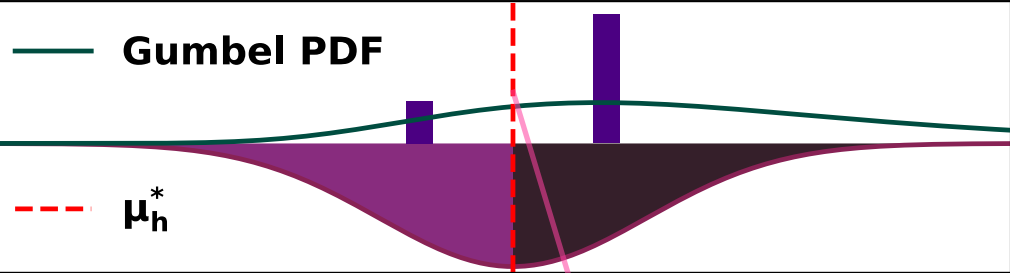


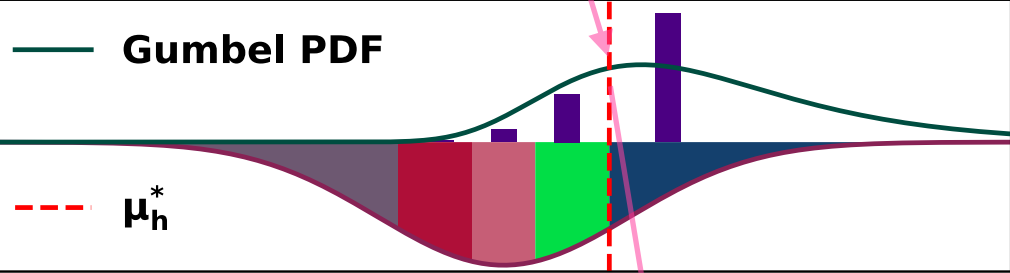
Response Threshold Distributions to Improve Best-of-n Decisions in Minimalistic Robot Swarms

Histogram shows the frequency of the largest sample

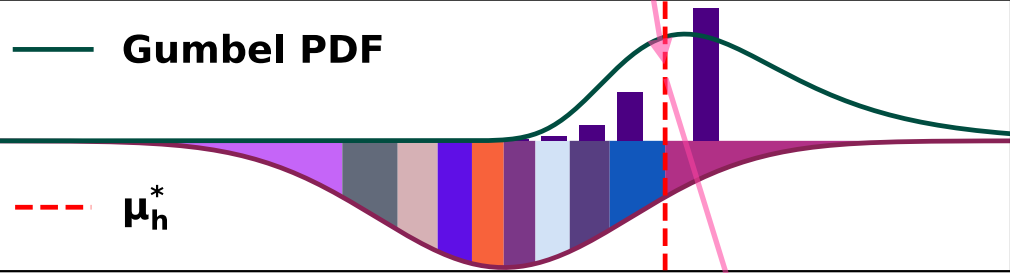
Number of samples drawn, $n = 2$



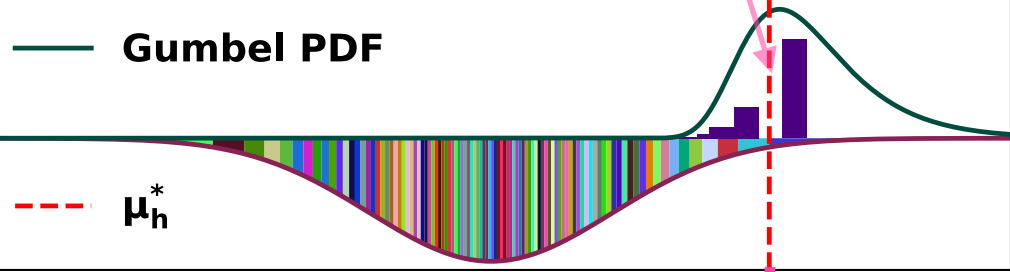
Number of samples drawn, $n = 5$



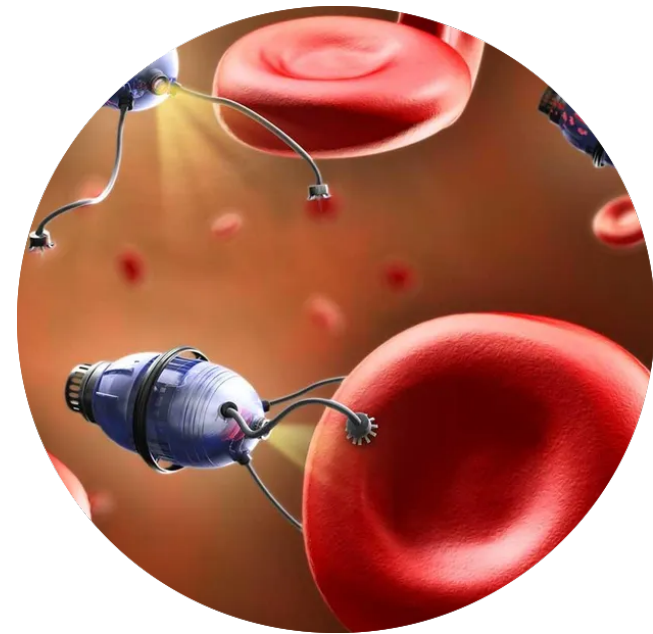
Number of samples drawn, $n = 10$



Number of samples drawn, $n = 100$

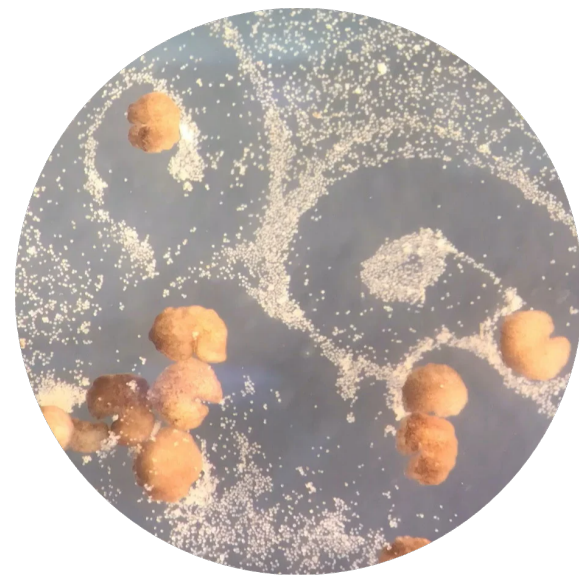


Courtesy: Human Paragon

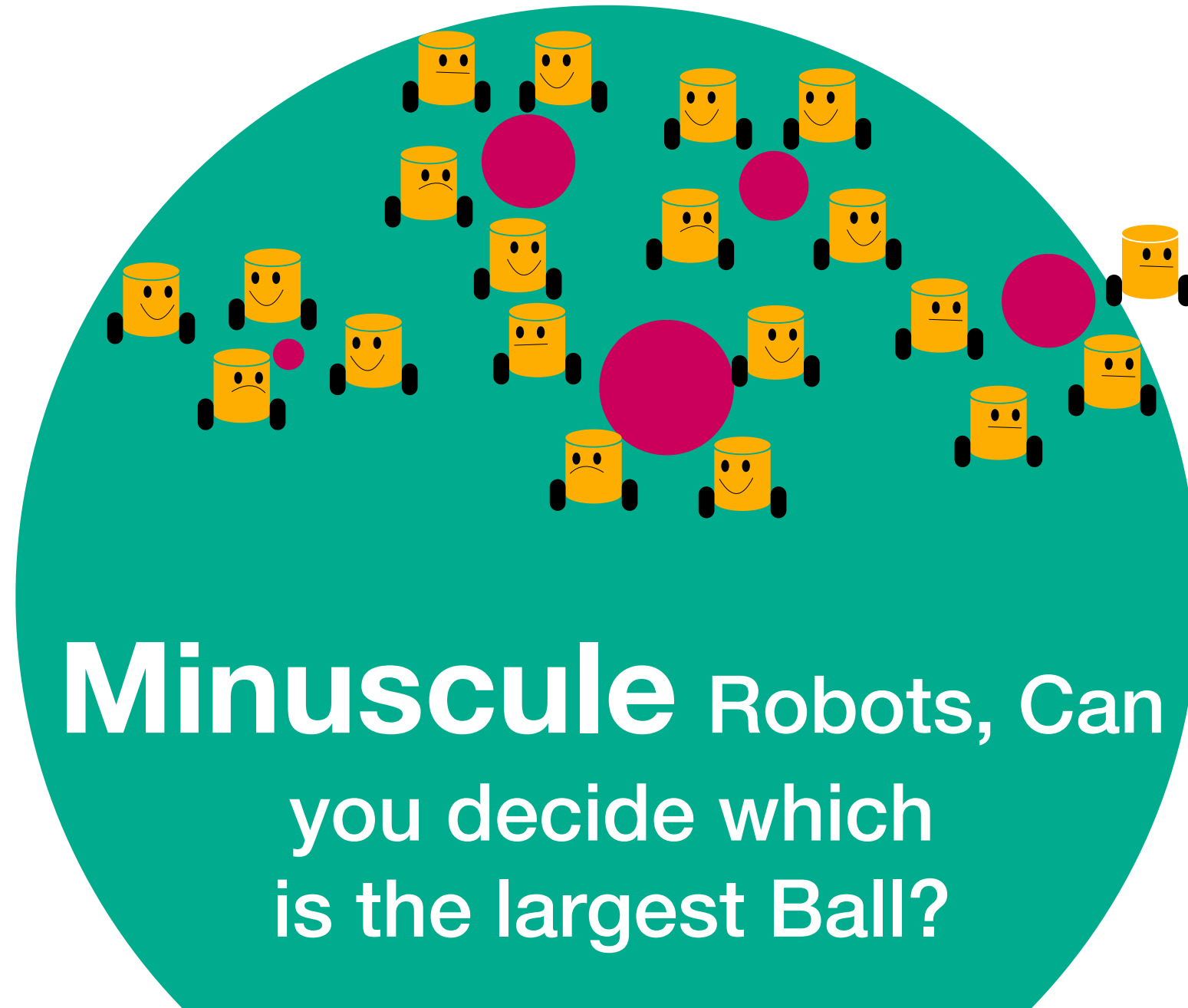


Swarm of Nano-robots that operate in blood vessels

Courtesy: Josh Bongard et al.

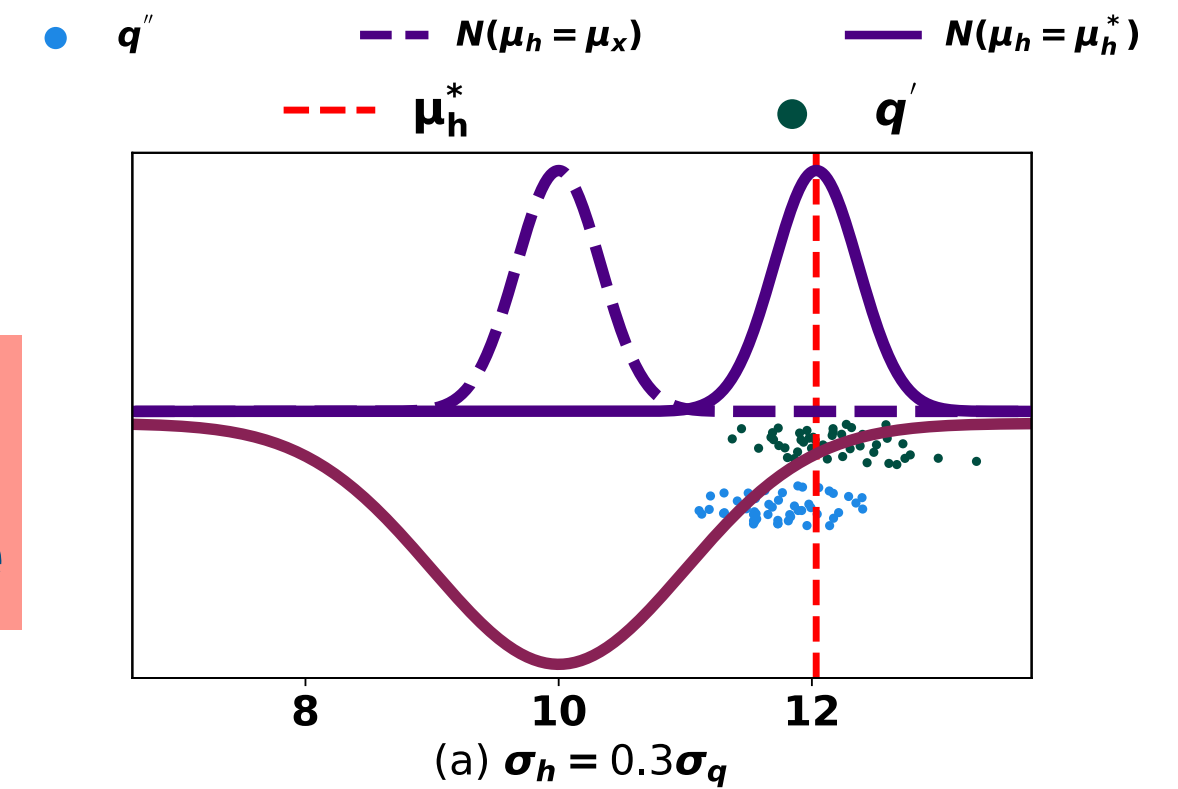
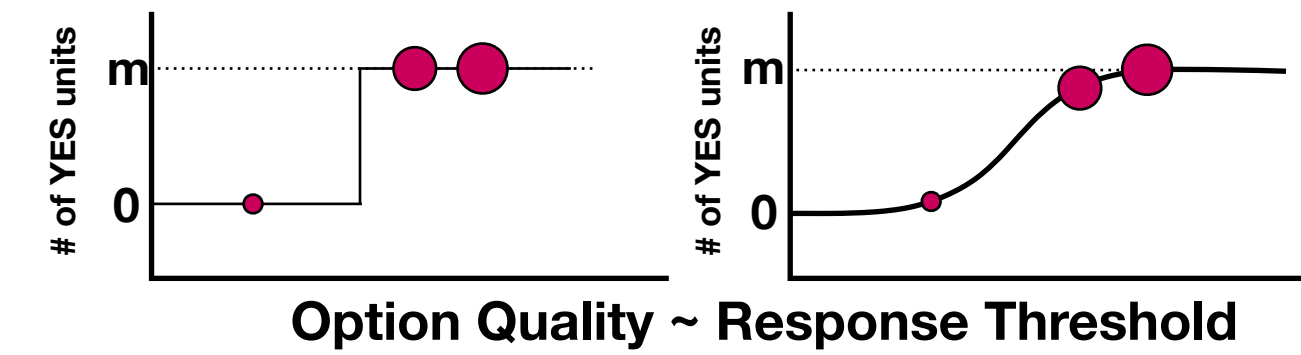
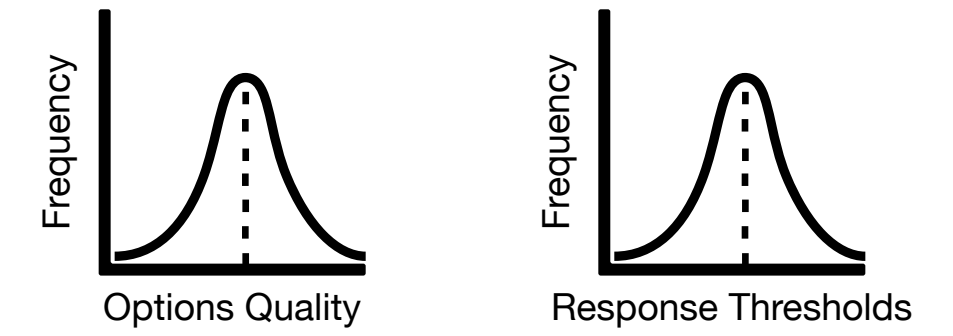


Biodegradable robots swarm for small scale monitoring and transport

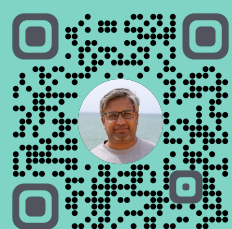


Use Response threshold PDF with this mean to improve success rate

$$\int_{-\infty}^{\mu_h^*} \mathcal{D}_q(x|\mu_q, \sigma_q) dx = 1 - \frac{1}{n} \quad (1)$$



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Dr. Andreagiovanni Reina

